

What Is Claimed Is:

1. An electrostatic breakdown prevention apparatus for an electronic apparatus which includes a connector for connecting and disconnecting, between an electronic apparatus
5 body and an external apparatus, a signal line used for bidirectional data transfer between said electronic apparatus body and said external apparatus, comprising:

an electrostatic breakdown preventing smoothing circuit provided for the signal line on said electronic apparatus body
10 side with respect to said connector for smoothing a signal inputted to the signal line; and

a switching mechanism provided on said connector for stopping the smoothing function of said electrostatic breakdown preventing smoothing circuit when said connector is connected,
15 but restoring the smoothing function of said electrostatic breakdown preventing smoothing circuit when said connector is disconnected.

2. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 1, wherein said
20 electrostatic breakdown preventing smoothing circuit is provided also for the signal line on said external apparatus side.

3. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 2, wherein said
25 switching mechanism simultaneously switches the electrostatic breakdown preventing smoothing circuit provided on said

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electronic apparatus body side and the electrostatic breakdown smoothing circuit provided on said external apparatus side.

4. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 1, wherein said
5 electrostatic breakdown preventing smoothing circuit includes a resistor connected to said signal line, a grounding line connected to said signal line, and a capacitor interposed in said grounding line, and said switching mechanism is provided for said grounding line and switches said capacitor between
10 a grounded state and a non-grounded state.

5. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 1, wherein said switching mechanism includes a movable member provided for sliding movement on a first one of connector elements of said
15 connector for which said electrostatic breakdown preventing smoothing circuit is provided and including a movable contact for being contacted with said grounding line to place said grounding line into a connected state, a biasing member for biasing said movable member in a direction in which said movable
20 contact is brought into contact with said grounding line, and a pressing member provided on a second one of said connector elements for fitting connection to said first connector element for moving, when said first and second connector elements are connected to each other, said movable member against a biasing
25 force of said biasing member to bring said movable contact provided on said movable member out of contact with said grounding

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line.

6. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 1, wherein said switching mechanism includes a lead switch provided on a first one of connector elements of said connector for which said electrostatic breakdown preventing smoothing circuit is provided, and a magnet provided on a second one of said connector elements for fitting connection to the first connector element for rendering, when said first and second connector elements are connected to each other, said lead switch operative to connect said grounding line.

7. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 1, wherein a plurality of signal lines are provided.

8. An electrostatic breakdown prevention apparatus for an electronic apparatus as claimed in claim 1, wherein said electronic apparatus is a portable apparatus.

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